

Preliminary Amendment

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A carrier robot system comprising:

a robot which has a placement portion for placing an object presenting a low-profile form thereon and carries the object;

a robot controller for controlling the robot;

a jig mounted on the placement portion of the robot and having an image pickup member;

an image processing portion for processing an image picked up by the image pickup member; and

a superior control portion for controlling the robot controller and image processing portion from a superior position.

2. (currently amended): A control method for a carrier robot for carrying an object presenting a low-profile shape placed at a predetermined placement position, wherein

the method comprising the steps of:

positioning in a predetermined direction and placing a jig having an image pickup member in advance on a placement portion of a front end of an arm of the robot,

shifting the robot to a position where the image pickup member can detect a characteristic part existing in the vicinity of the predetermined placement position,

picking up an image including the characteristic part by the image pickup member,

determining a position of the characteristic part in a coordinate system of the image pickup member based on the picked-up image, and

transforming a position on the coordinate system of the image pickup member into a position on a coordinate system of the robot to determine the placement position.

3. (original): The control method for a carrier robot according to Claim 2, wherein

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a transformation matrix for transforming a relationship between the coordinate system of the image pickup member and the coordinate system of the robot in translation and rotation is determined in advance, and

the position of the characteristic part in the coordinate system of the image pickup member is transformed into a position in the coordinate system of the robot.

4. (currently amended): The control method for a carrier robot according to Claims 2 to ~~3~~, wherein

the jig is removable from the placement portion during conveyance of the object presenting a low-profile form.

5. (currently amended): The control method for a carrier robot according to Claims 2 to ~~4~~, wherein

a characteristic part such as a hole, a pin, a mark, a letter pattern or the like is provided in the vicinity of the placement position.